

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Please cancel claims 213-231 without prejudice or disclaimer.

Please add new claims 232-285 as follows.

Listing of Claims:

Claims 1-231: (Canceled)

232. (New) A fastener assembly comprising a washer and a fastening element, the fastening element having an abutting face for transferring force to the washer, the fastening element having a periphery about the abutting face, the periphery being angled relative to the abutting face on the fastening element, the washer having a first face for contact with the fastening element, the first face having an inner portion for contact with the abutting face and a sloped outer portion about the inner portion, wherein the sloped outer portion is arranged to engage with the periphery of the fastening element.

233. (New) A fastener assembly as claimed in claim 232, wherein the periphery is chamfered around the abutting face.

234. (New) A fastener assembly as claimed in claim 232, wherein the inner portion of the first face of the washer is annular.

235. (New) A fastener assembly as claimed in claim 232, wherein the inner portion of the first face of the washer is flat.

236. (New) A fastener assembly as claimed in claim 232, wherein the fastening element is an internally threaded fastener.

237. (New) A fastener assembly as claimed in claim 232, wherein the fastening element is an externally threaded fastener having a head portion.

238. (New) A fastener assembly as claimed in claim 237, wherein the fastening element is a bolt.

239. (New) A fastener assembly as claimed in claim 232, wherein the sloped outer portion of the first face of the washer comprises a plurality of ramps forming a circular ratchet structure around the inner portion for resisting rotation in an unscrewing direction, while allowing rotation in a tightening direction.

240. (New) A fastener assembly as claimed in claim 232, wherein the first face of the washer includes a groove separating the inner portion from the sloped outer portion.

241. (New) A fastener assembly as claimed in claim 232, wherein the washer is elastically deformable.

242. (New) A fastener assembly as claimed in claim 241, wherein the stiffness of the washer increases with load.

243. (New) A fastener assembly as claimed in claim 242, wherein the washer has a second face opposed to the first face, the second face having a first loading surface and a second loading surface, the first and second loading surfaces being separated by a recess, whereby the washer is arranged to transfer load only through the first loading surface when loaded up to a first loading limit, and is arranged to transfer load through both first and second loading surfaces beyond the first loading limit.

244. (New) A fastener assembly as claimed in claim 232, wherein the washer has a body including an inner portion extending between the inner portion of the first face and an inner portion of a second face opposed to the first face, and where the inner portion of the body provides central stiffness to the washer.

245. (New) A washer for use in a fastener assembly, the fastener assembly comprising the washer and a fastening element, the fastening element having an abutting face for transferring force to the washer, the fastening element having a periphery about the abutting face, the periphery being angled relative to the abutting face of the fastening element, wherein the washer has a first face for contact with the fastening element, the

first face having an inner portion for contact with the abutting face and a sloped outer portion about the inner portion, the sloped outer portion being arranged to engage with the periphery of the fastening element.

246. (New) A washer as claimed in claim 245, wherein the inner portion of the first face of the washer is annular.

247. (New) A washer as claimed in claim 245, wherein the inner portion of the first face of the washer is flat.

248. (New) A washer as claimed in claim 245, wherein the sloped outer portion of the first face of the washer comprises a plurality of ramps forming a circular ratchet structure around the inner portion for resisting rotation in an unscrewing direction, while allowing rotation in a tightening direction.

249. (New) A washer as claimed in claim 245, wherein the first face of the washer includes a groove separating the inner portion from the sloped outer portion.

250. (New) A washer as claimed in claim 245, wherein the washer is elastically deformable.

251. (New) A washer as claimed in claim 250, wherein the stiffness of the washer increases with load.

252. (New) A washer as claimed in claim 251, wherein the washer has a second face opposed to the first face, the second face having a first loading surface and a second loading surface, the first and second loading surfaces being separated by a recess, whereby the washer is arranged to transfer load only through the first loading surface when loaded up to a first loading limit, and is arranged to transfer load through both first and second loading surfaces beyond the first loading limit.

253. (New) A washer as claimed in claim 245, wherein the washer has a body including an inner portion aligned with the inner portion of the first face, and where the inner portion of the body provides stiffness to the washer.

254. (New) A fastener assembly comprising a fastening element and a washer, the fastening element having an internally threaded bore, the fastening element having a head portion and projection portion arranged axially along the bore, the head portion being larger in a radial direction than the projection portion, the washer having a force transferring portion, the force transferring portion having an internal radius greater than the external radius of the projection portion, the force transferring portion being arranged to locate around the projection portion, such that axial compressive forces acting through the washer are transmitted to the head portion and distributed along the internally threaded bore at least partially within the head portion and the projection portion.

255. (New) A fastener assembly as claimed in claim 254, wherein the projection portion has an outer radial periphery surface which tapers inwardly towards a free end of the projection portion.

256. (New) A fastener assembly as claimed in claim 255, wherein the washer has a frusto-conical internal surface arranged to be spaced from the outer radial periphery surface of the projection portion in a clearance fit.

257. (New) A fastener assembly as claimed in claim 254, wherein the force transferring portion of the washer has a first engaging face arranged to engage with an engaging face of the head portion, the engaging faces having a mechanical connection for coupling together when the fastener assembly is rotated in a tightening direction.

258. (New) A fastener assembly as claimed in claim 257, wherein the mechanical connection couples the engaging faces together when the fastener assembly is rotated in an unscrewing direction.

259. (New) A fastener assembly as claimed in claim 258, wherein the mechanical connection is provided by inter-engaging grooves.

260. (New) A fastener assembly as claimed in claim 257, wherein the mechanical connection disengages the engaging faces in response to rotation of the fastening element relative to the washer in an unscrewing direction.

261. (New) A fastener assembly as claimed in claim 260, wherein the mechanical connection comprises a ratchet structure on each of the engaging faces.

262. (New) A fastener assembly as claimed in claim 257, wherein the engaging faces of the fastener assembly are sloped to promote centering.

263. (New) A fastener assembly as claimed in claim 262, wherein the engaging faces are sloped by between 10 and 15 degrees.

264. (New) A fastener assembly as claimed in claim 254, wherein the washer is elastically deformable.

265. (New) A fastener assembly as claimed in claim 264, wherein the stiffness of the washer increases with load.

266. (New) A fastener assembly as claimed in claim 265, wherein the washer has a second face spaced from the head portion of the fastening element, the second face having a first loading surface and a second loading surface, the first and second loading surfaces being separated by a recess, whereby the washer is arranged to transfer load only through the first loading surface when loaded up to a preliminary loading limit, and is arranged to transfer load through both first and second loading surfaces beyond the preliminary loading limit.

267. (New) A fastener assembly as claimed in claim 254, wherein the force transferring portion of the washer provides stiffness to the washer when the washer is under load.

268. (New) A fastening element in a fastener assembly as claimed in claim 254.

269. (New) A fastener assembly comprising a first fastening element, a second fastening element and a washer, the first fastening element having an internally threaded bore, the first fastening element having a head portion and projection portion arranged axially along the bore, the head portion being larger in a radial direction than the projection portion, the second fastening element having a force transferring portion, the force transferring portion having an internal radius greater than the external radius of the projection portion, the force transferring portion being arranged to locate about the projection portion, such that axial compressive forces acting through the washer are transmitted through the second fastening element to the head portion and distributed along the internally threaded bore at least partially within the head portion and the projection portion.

270. (New) A fastener assembly as claimed in claim 269, wherein the projection portion has an outer radial periphery surface which tapers inwardly towards a free end of the projection portion.

271. (New) A fastener assembly as claimed in claim 270, wherein the second fastening element has a frusto-conical internal surface arranged to be spaced from the outer radial periphery surface of the projection portion in a clearance fit.

272. (New) A fastener assembly as claimed in claim 269, wherein the force transferring portion of the second fastening element has a first engaging face arranged to engage with an engaging face of the head portion, the engaging faces having a mechanical connection for coupling together when the fastener assembly is rotated in a tightening direction.

273. (New) A fastener assembly as claimed in claim 272, wherein the mechanical connection couples the engaging faces together when the fastener assembly is rotated in an unscrewing direction.

274. (New) A fastener assembly as claimed in claim 273, wherein the mechanical connection is provided by inter-engaging grooves.

275. (New) A fastener assembly as claimed in claim 272, wherein the mechanical connection urges the engaging faces apart in response to rotation of the fastening element relative to the washer in an unscrewing direction.

276. (New) A fastener assembly as claimed in claim 275, wherein the mechanical connection comprises a ramp structure on each of the engaging faces.

277. (New) A fastener assembly as claimed in claim 269, wherein the engaging faces of the fastener assembly are sloped to promote centering.

278. (New) A fastener assembly as claimed in claim 277, wherein the engaging faces are sloped by between 10 and 15 degrees.

279. (New) A fastener assembly as claimed in claim 269, wherein the washer is elastically deflectable.

280. (New) A fastener assembly as claimed in claim 279, wherein the stiffness of the washer increases with load.

281. (New) A fastener assembly as claimed in claim 280, wherein the washer has a second face spaced from the second fastening element, the second face having a first loading surface and a second loading surface, the first and second loading surfaces begin separated by a recess, whereby the washer is arranged to transfer load only through the first loading surface when loaded up to a preliminary loading limit, and is arranged to transfer load through both first and second loading surfaces beyond the preliminary loading limit.

282. (New) A fastener assembly as claimed in claim 269, wherein the washer has a body including an inner portion aligned with the force transferring portion of the second fastening element, and where the inner portion of the body provides stiffness to the washer when the washer is under load.

283. (New) A fastener assembly as claimed in claim 269, wherein the washer includes a plurality of ramps forming a circular ratchet structure about an annular surface oriented away from the second fastener element.

284. (New) A fastener assembly as claimed in claim 269, wherein the second fastener element is formed from a material harder than that of the first fastener element.

285. (New) A fastening element in a fastening assembly as claimed in claim 269.